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ABSTRACT

The report describes the development of the Meadow/Kendall Social-Emotional Assessment Inventory for Deaf Students (SEAI). The SEAI has grown out of requirements in P.L. 94-142, the Education for All Handicapped Children Act. The theoretical framework, including its emphasis on language deprivation and the resulting communication problems of deaf students, is examined. The SEAI's development is traced from item construction, field testing, and response processing. Norms are then established. Administration and scoring of the SEAI are detailed, and examples are provided. The conclusion cautions that the SEAI should be a part of an overall assessment procedure and suggests that the inventory may identify students who need extra attention in a particular area. The 59-item inventory is appended. (CL)

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Meadow/Kendall Social-Emotional Assessment Inventory for Deaf Students

Kendall Demonstration Elementary School
Gallaudet College

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The Manual

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The Meadow/Kendall Social-Emotional Assessment Inventory for Deaf Students (SEAI) is an instrument containing 59 items, designed to be completed by teachers or other educational personnel with close contact with their deaf students. The Inventory contains three subscales: Social Adjustment, Self Image, and Emotional Adjustment. Norms are provided for girls and for boys, ages 7 to 15 and ages 16 to 21. These norms are based on inventories collected on more than 2,400 students enrolled in ten different schools and programs for the deaf. This manual describes the rationale for the Inventory, particularly with reference to the assessment provisions of Public Law 94-142, the development of items included, collection of data, and their statistical treatment. Procedures are described for administrating, scoring, and interpreting the Inventory, with a cautionary postscript outlining the uses and limitations of the instrument.

Researchers or administrators interested in using a modification of the SEAI for purposes of comparing groups of deaf and hearing children may contact the author for information about an alternate form for hearing children.

MEADOW/KENDALL SOCIAL-EMOTIONAL ASSESSMENT INVENTORY FOR DEAF STUDENTS

MANUAL

by

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PREFACE

A great many professionals who are involved with the education of deaf children or with the provision of mental health services for them have participated in the various stages of development of this Inventory. We would like to thank everyone who has contributed and to make a special point of noting the generosity with which requests for time have been met by dedicated and busy people in these fields.

The teachers, administrators, and support service professionals at the Kendall Demonstration Elementary School have been involved in every revision of the Inventory. Their thoughtful and productive approach to the problems and possibilities of such an instrument was of great benefit. The leadership of Dr. Robert R. Davila and Mr. Carl Kirchner was evident in the support received for the project.

More than 100 professionals from across the United States responded to requests for input about the first "Research Edition" of the Inventory. Their extensive comments and their responses to a questionnaire about the format were incorporated in the final version.

Ten schools and programs for deaf children participated in the data collection process that led to development of norms. Some of these schools wished to remain anonymous, so we have decided to keep the identity of all participating schools confidential. However, we would like to thank the teachers who completed almost 2,400 Inventories at that stage of the development process.

Ms. Karen Dean helped to coordinate the data processing effort. Drs. Mark Greenberg and McCay Vernon offered helpful suggestions for the revisions of this Manual.

CONTENTS

Introduction 1

Theoretical Rationale for the Social-Emotional Assessment Inventory for Deaf Children 2

Development of the Inventory 3

Construction of the Items in the Inventory 3

Collection of Data for the Inventory Development 3

Data Processing, Scale Construction, Statistical Procedures 6

Establishment of Norms 6

Administration and Scoring of the Inventory 8

Adminstration 8

Scoring 9

Norms (Tables 3 and 4) 10

The Use of the Social-Emotional Assessment Inventory: A Cautionary Postscript 12

References 13

The Meadow/Kendall Social-Emotional Assessment Inventory for Deaf Students 15

MEADOW/KENDALL SOCIAL - EMOTIONAL ASSESSMENT INVENTORY FOR DEAF STUDENTS

MANUAL

Introduction

The impetus for the development of the Social-Emotional Assessment Inventory (SEAI) for Deaf Students was the need of the Kendall Demonstration Elementary School at Gallaudet College to comply with the regulations of the Education for All Handicapped Children Act of 1975, or Public Law 94-142 (Federal Register, 1977). Among the broad and far-reaching requirements mandated by the Act was the development of an individualized educational plan for every handicapped child in the United States. This individualized educational plan was to be based on an assessment of the child's current status in every area of development which might be of importance to educational placement and programming.

Section 121a.532 of the Act states that "the child is assessed in all areas related to the suspected disability, including, where appropriate, health, vision, hearing, social and emotional status, general intelligence, academic performance, communicative status, and motor abilities" (Federal Register, 1977: 42497). The law has required that tests be non-discriminatory, either racially or culturally, that tests be validated for the specific purpose for which they are used; be used for the specific purpose recognized by the producer; and be provided in the child's native language or mode of communication.

The requirement that assessment instruments be validated for the specific purpose for which they are to be used poses special problems for those who work with deaf children because there are few assessment instruments that have been standardized with deaf students. However, in preparing for the initial assessments of Kendall students in compliance with P.L. 94-142, it was decided to experiment with an existing instrument designed to measure the behavior of a general population of school children, with the idea of adapting and then norming that instrument to meet the current need.

It was believed that the instrument selected should contain, to the extent possible, items based on directly observable behaviors, rather than on indirect inferences made by some adult in a child's environment. The instrument should be designed to be completed by classroom teachers. This criterion was established for two reasons. First, most schools for deaf children either have no school psychologist available for direct testing, or the psychologist is kept more than busy completing necessary tests of intelligence and educational achievement (among others). Second, classroom teachers are the people within the school system who have the greatest opportunity to observe students' behaviors over time and in a variety of situations. This means that their assessments should be both valid and reliable, assuming that they are being asked to assess relevant dimensions of behavior. The ability of classroom teachers to make valid judgments about the behavioral and emotional status of their students has been demonstrated by a number of research studies (Bower, 1958; Maes, 1966) as well as by the observations of mental health consultants in school settings (Berlin, 1967; Schlesinger & Meadow, 1972).

A variety of instruments was considered for use with the Kendall students. (See Meadow & Trybus, 1979, for a review of various approaches

and instruments used in the evaluation of behavioral and emotional problems of deaf children.) The instrument eventually selected for use in developing the first Individualized Educational Programs (IEP's) for Kendall students, in the area of social and emotional development, was the School Behavior Check List (Miller, 1972). This checklist had been standardized on a population of 5,000 hearing children, and separate norms were available for both boys and girls, within the age groups of 3 to 6 and 7 to 13. Goulder and Trybus (1977) had reported on the use of the School Behavior Check List (SBCL) with 148 hearing impaired children in three state residential schools for the deaf, with some item analyses of the Check List.

In the spring of 1977. Kendall teachers and supervisors were asked to complete the School Behavior Check List for each student. These ratings were used in developing the IEP's for that school year. After school personnel had used the SBCL for assessing students in their classes, they were surveyed in order to learn of their assessment of the usefulness of the SBCL for this particular population. While about 40 percent felt that the instrument was usable with deaf students, the remainder had reservations about it. Their comments detailed the items they felt were inappropriate, as well as the items specific to deafness which were not included. These comments seemed a convincing rationale for attempting an instrument designed especially for hearing impaired students.

Theoretical Rationale for the Social-Emotional Assessment Inventory for Deaf Children

In developing items for the SEAI, a number of theoretical and practical considerations were taken into account. The instrument should reflect positive classroom and school behaviors, and not be aimed exclusively at "problem" or "pathological" behaviors. The instrument should contain enough items to make reliable subscales a reasonable expectation, but not so long as to make it overly burdensome for teachers to complete.

A theoretical framework for the Inventory was based on ideas that had been developed over a period of years (Meadow, 1967; 1975; 1976; 1980) and had drawn on the research and clinical work of many individuals who had been involved with the mental health problems and the development of deaf persons (e.g., Rainer, Altshuler & Kallmann, 1969; Levine, 1956; Mindel & Vernon, 1971). Much of the theory was related to work done in collaboration with H. Schlesinger at the University of California, San Francisco (Meadow & Schlesinger, 1976; Schlesinger & Meadow, 1972).

Basic notions include four major propositions: (a) There is nothing inherent in the condition of deafness that leads inevitably to differences in the social and emotional development of deaf and hearing persons; (b) however, deaf persons generally share a number of important experiences that may lead to differing patterns of social and emotional adjustment; (c) chief among these patterns is the relative language deprivation that is often related to deafness which leads in turn to attenuated communication possibilities; and (d) an additional factor in the adjustment of deaf persons is the acceptance (or lack of acceptance) of the deaf individual by significant others in the environment. Thus, it might be expected that some deaf children may have negative feelings about themselves that would be evinced by embarrassment around the visible signs of their handicap: hearing aids, sign language, poor speech. Many of the life experiences of deaf children might contribute to habits or traits that could be described as "immaturity." Among these experiences might be the over-protective atmosphere of many homes and schools. Decreased opportunities to discuss feelings and to be re-

sponsible for others may lead to a deficiency in empathy. Over-indulgence by guilty parents may lead to behavior characterized as egocentric. These are examples of how theoretical notions were translated into possible Inventory items.

Development of the Inventory

Construction of Items in the Inventory

Based on the theoretical framework described in the preceding section, four target categories were established that were expected eventually to be separate scales: (a) sociability and interpersonal relationships; (b) individual or personal characteristics; (c) self-esteem or identity; and (d) maturity, responsibility, independence. Between twelve and fifteen items were collected or written for each category. They were fairly evenly divided between positive and negative statements of observable behaviors.

A total of 52 items was circulated to teachers and support specialists (audiologists, counselors, social workers, etc.) at the Kendall Demonstration Elementary School for comments and suggestions. Revisions and additions were made on the basis of that feedback and a second draft containing 57 items was developed. This second draft was mailed to a large group of professionals who were knowledgeable about deaf children. A brief questionnaire designed to elicit reactions to format as well as content accompanied the Inventory. A total of 83 responses to this request was received, including responses from 22 educational administrators, 5 faculty members from teacher training programs, 28 mental health professionals, 25 classroom teachers, and 3 researchers. If the thirty Kendall teachers who responded to the first draft of the Inventory are added to this total, it can be said that more than one hundred professionals associated with deaf children contributed to the development of the items contained in the final version. Each suggestion and comment was carefully considered, and items were again revised. This third and final revision resulted in a "Research Edition" of the Inventory containing 69 items (see Table 1).

With so many revisions and re-workings, it is difficult to know the original source of the final items with certainty. However, a rough reconstruction of the process indicates that the 59 items appearing in the final form came originally from six primary sources.

Twenty of these items were adopted (with language changes, in many instances) from a rating scale used previously in the collection of data from teachers of deaf students (Meadow, 1967; Schlesinger & Meadow, 1972, chapter 6). Thirteen items were written as the direct result of suggestions from teachers at the Kendall Demonstration Elementary School. Six were the result of suggestions of persons working in the field who reviewed the first research edition of the Inventory. Four were suggested by items of behavior enumerated on a response form used in a mental health survey of school children in Los Angeles County (State of California, 1960; Schlesinger & Meadow, 1972, chapter 7.) Two were suggested by items included in the School Behavior Check List (Miller, 1972). Five items were written on the basis of psychological theory developed in working with deaf individuals. Nine items were based on self image theory directly related to observations in schools for deaf students.

Collection of Data for Inventory Development

In the spring of 1978, the process of contacting schools and programs for deaf children began for the purpose of seeking cooperation in the collection of data for further development of the Inventory. Efforts were made to secure the participation of schools in a variety of geographical areas, including both day and residential programs. Some

Table 1
Inventory Items (Research Edition) with Varimax Rotated Factor Matrix

	Item	Factor I	Factor II	Factor III
1.	Relates well to peers and is accepted by them	.407	.500	.234
2.	Displays twitches, mannerisms, tics of face or body	.224	.186	.488
3.	Distinguishes between fact and fiction, real and imaginary events and/or people (e.g., understands that "Superman" does not really exist)	.260	.369	.329
4.	Denies own misbehavior (may also blame others for own misdeeds)	.696	.076	.158
5.	Takes pride in physical appearance/personal attractiveness: feels at least moderately pretty or handsome	.282	.403	.221
6.	Isolated. Has few or no friends. May be considered "withdrawn"	.148	.506	.400
7.	Shows initiative in completion of assignments; motivated to finish work	.450	.505	.087
8.	Aggressive. Behavior may include fighting, scratching, biting other students and/or kicking or hitting animals	.701	−.006	.196
9.	Has generally acceptable emotional responses. Rages (tantrums) or violent outbursts occur only after extreme provocation if at all	.474	.201	.215
10.	Demonstrates negative feelings about physical size and/or strength	.236	.221	.532
11.	Accepts some delay of gratification. (Does not expect instant satisfaction of every need, whim or desire)	.506	.283	.280
12.*	Lacks concern for safety of self and others. Fails to take age-appropriate precautions with fire, electrical appliances, tools	--	--	--
13.	Tries to communicate with others, (both deaf and hearing) by any means necessary: (signs), speech, writing, pantomime	.055	.583	.101
14.	Teases or annoys or pesters other students	.717	−.011	.164
15.	Takes responsibility for fair share of tasks (e.g., helps to clean up after a project is finished)	.554	.385	.134
16.	Engages in behavior considered by most teachers and students to be bizarre or strange (e.g., talking or signing to self, rocking, staring at lights for long periods, twirling)	.342	.243	.499
17.	Performs cooperatively in group of peers. Contributes to cohesion rather than conflict	.676	.399	.166
18.	Has many fears. Overly and unrealistically concerned with danger, storms, injury, death	.164	.169	.670
19.	Self-reliant. Not overly dependent on others for help	.298	.497	.289
20.	Gives up quickly. Expects to fail	.367	.416	.368
21.	Happy, cheerful, pleasant, easy-going	.517	.453	.197
22.	Engages in destructive behavior (e.g., breaking objects, defacing walls or furniture, scattering things in disarray)	.612	.098	.345
23.	Identifies with (e.g., shows excited recognition of) a stranger or visitor who wears a hearing aid	.005	.417	−.036
24.	Lacks competence with tools, utensils or equipment even though there is no apparent physical basis for lack of skill	.198	.300	.538
25.	Relates well to adults (both men and women)	.443	.593	.154
26.	Insists on repetition of usual routines. Changes in schedules, habits, route arrangements elicit extreme (negative) responses	.266	.215	.486
27.	Trustworthy, dependable, reliable	.697	.409	.131
28.	Misbehavior not deterred by restrictions or by threat of punishment	.608	.080	.167
29.	Creative. Shows imagination in school work or in leisure/play activities	.191	.630	.112
30.	Fails to accept criticism, especially if it is expressed as discipline or restriction	.662	.137	.231
31.*	Behavior reflects knowledge and acceptance of sexual identity (Girls content to be female; boys content to be male)	--	--	--
32.*	Shy. Bashful. Hesitates to interact with others	--	--	--
33.	Lethargic. Lacks energy. Always tired	.057	.412	.409

34.*	Preoccupied with sex-related issues	--	--	--
35.	Shows excited, positive response to stranger who is using signs	-.011	.425	-.003
36.	Demands attention. Must be the center of everything. (May insist on being first in line, or leader, or captain)	.651	-.137	.282
37.	Tries to understand the communication of others by any means offered: listening, lipreading, signing, writing, gestures	.158	.606	.125
38.	Overly concerned with cleanliness. (May wash hands constantly or be unable to tolerate specks of dust or dirt)	.073	.003	.527
39.	Seems to understand the feelings of others; demonstrates empathy	.586	.449	.112
40.*	Pretends to understand the remarks of others even when he/she comprehends nothing	--	--	--
41.	Curious. Eager to learn new things. Likes new experiences	.211	.688	.118
42.	Daydreams. Tunes out events in immediate environment	.251	.402	.386
43.	Participates in classroom or group activities; volunteers answers, offers opinions in discussions.	.199	.702	.143
44.	Responds poorly to losing in games or failing to achieve in class	.626	.077	.288
45.	Other students look to this student as a leader	.098	.563	.137
46.	Shows great concern or preoccupation with minute details (e.g., may insist on perfection in writing or drawing)	.032	-.110	.414
47.	Demonstrates a sense of humor or wit (e.g., can appreciate funny situations or jokes at own expense)	.236	.560	.245
48.*	Avoids wearing hearing aid at school and/or on field trips	--	--	--
49.	Participates well in organized play or games (takes role of leader or follower; plays to completion; follows rules)	.467	.477	.234
50.	Complains of physical ailments that have no apparent medical basis (e.g., headaches, stomachaches, etc.)	.247	.139	.527
51.	Is willing to interact with hearing people (i.e., does not refuse to interact with peers or adults who have normal hearing)	.154	.528	.189
52.	Anxious. Nervous. Worries about many commonplace events	.186	.228	.589
53.	Accepts differences in other people; doesn't tease or exclude peers on basis of racial differences or physical handicaps	.577	.269	.149
54.	Has habits, mannerisms or traits considered to be rude or socially unacceptable (e.g., picks nose, makes obscene/sexual references)	.537	.179	.386
55.	Demonstrates acceptance/pride in own social group membership (i.e., racial/ethnic/linguistic/religious identity)	.287	.517	.276
56.	Demonstrates negative attitudes toward sign language (refuses to sign, pretends not to understand others' signing)	.185	.234	.420
57.*	Follows basic rules of neatness and personal hygiene	--	--	--
58.	Demonstrates negative feelings about own motor skills, dexterity, or visible handicaps	.176	.242	.611
59.	Doesn't try to copy classmates' work nor take things belonging to others	.537	.269	.155
60.	Generous. Shares with others	.589	.404	.093
61.	Has many accidents or mishaps resulting in breakage of objects or injuries requiring first aid	.351	.099	.534
62.	Demands attention and help constantly. Takes disproportionate share of teachers' time	.490	.140	.394
63.*	Won't stand up for self. Lets others take advantage of him/her	--	--	--
64.*	Restless. Never sits still	--	--	--
65.	Acts without thinking,. Impulsive. Doesn't consider or doesn't care about consequences	.693	.127	.268
66.	Obeys the rules; follows instructions or requests from adults in authority	.730	.253	.079
67.	Avoids communicating through speech. Seems embarrassed to use voice	.004	.292	.165
68.*	Demonstrates age-appropriate knowledge about human reproductive functions and/or body parts	--	--	--
69.	Kind and considerate	.735	.341	.059

* Items eliminated from the final Inventory

of the participating schools requested that their identities remain confidential. It was therefore decided not to reveal the names of any specific schools.

Of the 2,365 completed Research Edition Inventories received, 1,793 were from residential schools and 572 were from day programs. In terms of geographical region, 367 were from the Northeastern United States, 346 from the North Central, 893 from the South, and 759 from the Southwest.

In addition to teachers' evaluations of students on the 69 items of the Inventory, information on students' birthdates and sex was also requested.

Data Processing, Scale Construction, Statistical Procedures *

Inventories were coded and information entered on a computer file. On the basis of preliminary analyses, ten items were eliminated from the pool of 69. These eliminated items included Items 12, 31, 32, 34, 40, 48, 57, 63, 64, 68. (For wording of these items, consult Table 1; the items eliminated from the final Inventory are marked with an asterisk).

Items were eliminated for any one of three reasons: (a) Twenty percent or more of the teacher raters could not evaluate a student on the item, either because it "did not apply" or because they did not have enough opportunities to observe that particular student in relevant situations; (b) the item did not differentiate sufficiently between groups of students, e.g., 75 percent of the students received the same rating (T or F) on an item; and (c) the item did not have a sufficiently high loading on any of the three factors or scales.

It is of some interest that all three of the items with some relationship to sexual (gender) identity or information were eliminated because of an insufficient number of responses from raters. One graduate student who used the research edition of the Inventory as one instrument in her dissertation research was asked to eliminate one of these items from the pool before her proposal was approved by the local school districts. Mental health professionals may find these reflections of sensitivity somewhat surprising.

Three factors were generated by the factor analysis, and inspection by the investigators confirmed a face validity. These three emergent factors or scales were labeled as follows: Scale 1, Social Adjustment; Scale 2, Self Image; Scale 3, Emotional Adjustment. The inter-item reliabilities of the three scales (Cronbach's alpha) are Scale 1 = .96, Scale 2 = .94, Scale 3 = .91.

Establishment of Norms

The next procedure involved the computation of mean scores for each scale for every student included in the population base, with the following exceptions: Students younger than seven years of age were excluded because only 34 Inventories were returned for children in that age group. Also excluded were students whose teachers did not complete at least 80 percent of the items for that scale. Further cases were eliminated where informa-

*Data processing was coordinated by Ms. Linda Petersen, Office of Demographic Studies, Gallaudet College, with the assistance of Ms. Karen Dean, Educational Research Laboratory, Gallaudet College. Statistical procedures and general technical assistance were provided by Dr. Lawrence Rudner, Educational Research Laboratory. Since this manual is intended primarily for use by teachers, limited statistical data are included here. Dr. Rudner will be senior author of a paper detailing this aspect of the work. Dr. Michael Karchmer, Office of Demographic Studies, participated in lengthy discussions leading to decisions made at various stages of the developmental work. This was a team effort in every sense of the word.

tion on either sex or age was not available. Using these criteria, 2,071 cases (88 percent) were available for establishing norms for Scale 1 (Social Adjustment); 1,757 cases (74 percent) were available for establishing norms for Scale 2 (Self Image); and 2,042 cases (86 percent) were available for establishing norms for Scale 3 (Emotional Adjustment).

In order to determine the desirability of providing separate norm distributions for sex and/or age groups, three-way analyses of variance were performed for each of the three scales. The three factors were sex (girls vs. boys); type of educational program (day vs. residential), and age group (ages 7 to 9 vs. 10 to 12 vs. 13 to 15 vs. 16 to 18 vs. 19 to 21).

Significant differences between age levels were found for all three scales; significant differences between girls and boys were found for Scale 1 (Social Adjustment) and for Scale 2 (Self Image) but not for Scale 3 (Emotional Adjustment). No significant differences were found for school setting (day vs. residential).

On Scale 1 (Social Adjustment), the girls as a group were rated higher than the boys, $F\,(1,2051) = 56.57$, $p < .001$; and the older groups of students tended to score higher on this scale compared to the younger groups, $F\,(4,2051) = 7.09$, $p < .001$. On Scale 2 (Self Image), girls were seen as demonstrating more positive self images than boys, $F\,(1,1737) = 11.38$, $p = .001$; and younger students were seen as demonstrating more positive self images than older students, $F\,(4,1737) = 3.22$, $p = .01$. For both Scale 1 and Scale 2, the significant age break grouped the 7 to 15 year-olds together and the 16 to 21 year-olds together.

Table 2 shows mean scores (1 = "low" and 4 = "high"), standard deviations, and numbers of cases for each of the three scales, by sex and age groupings.

Age and sex did not interact for any of the three scales, nor were any significant three-way interactions found. The only significant interaction was between school setting and age, on Scale 3, $F\,(4,2014) = 3.49$, $p = .008$. Scale 3 also showed significant main effects for age. Scores tended to be progressively more positive across five three-year age groups (spanning ages 7 to 21), $F\,(4,2014) = 3.22$, $p = .01$.

Table 2
Scores on SEAI Scales by Sex and Age

Scale 1: Social Adjustment	Mean	s.d.	(N)
Boys, Ages 7–15	2.85	.50	(692)
Girls, Ages 7–15	3.02	.51	(540)
Boys, Ages 16–21	2.96	.54	(444)
Girls, Ages 16–21	3.12	.46	(395)

Scale 2: Self Image	Mean	s.d.	(N)
Boys, Ages 7–15	3.04	.45	(605)
Girls, Ages 7–15	3.10	.48	(477)
Boys, Ages 16–21	2.97	.48	(358)
Girls, Ages 16–21	3.06	.44	(317)

Scale 3: Emotional Adjustment	Mean	s.d.	(N)
Boys and Girls, Ages 7–15	3.25	.45	(1231)
Boys and Girls, Ages 16–21	3.31	.44	(811)

Based on the analyses, it was apparent that separate norms should be provided for younger girls, younger boys, older girls, and older boys for Scales 1 and 2. For Scale 3, separate norms are needed for (a) younger boys and girls and (b) older boys and girls. These norms are shown, expressed in deciles, in Tables 3 and 4.

Administration and Scoring of the Inventory

Adminstration

Generally speaking, the instructions on the front page of the Inventory should be adequate for orienting school personnel to the assessment process:

Read each statement carefully and decide if it describes behavior that you have observed in this particular student. In deciding how to assess the student, use as your reference all students of the same age, regardless of whether they have a hearing loss or not. (However, some statements are relevant ONLY for hearing impaired students. For these statements, use all deaf students known to you as your reference, NOT just those in your present class.) Circle the response that reflects your best judgment of this student.

Example:

T t (f) F ? 23. Happy, cheerful, pleasant, easy-going

Key: T = VERY TRUE. Statement gives a very good description of this student as she or he behaves most of the time.

t = true. Statement describes this student's behavior some of the time.

f = false. Statement is not a good description of this student's behavior.

F = VERY FALSE. This student would never (or almost never) be described in this way.

? = CANNOT RATE or does not apply.

The Inventory was designed to be used by persons who know deaf students well, as a result of intensive contact and repeated opportunities for observations in a variety of settings within the school: at work and at play; with peers and with adults; alone and in groups; within and outside the classroom. The Inventory will only be as reliable (dependable) as the observations of the person who completes it. The Inventory should be seen as a way to structure the everyday observations of students and not as a substitute for careful observation. Thus, teachers and parents should have more confidence in assessments that are made after evaluators have known a student for several months than in assessments made after a few weeks. (Evaluators should probably have a period of at least eight weeks in which to make observations of students who were not previously known to them.)

Evaluators who feel that they do not know a particular student very well are urged to request that a colleague who has had frequent contact with the student complete a second rating. The scores from the two independent assessments can then be compared. If scale scores differ appreciably, the two raters should check the items where there are discrepancies and discuss some examples of behaviors from their own experiences with the student.

It should be remembered that students often *do* display different kinds of behavior with two different adults, and there should be no onus attached either to requesting a second opinion, or to reaching different conclusions. However, the person within the school who is responsible for monitoring the administration of the SEAI should be on the alert for personnel who consistently seem to assess students either too positively or too negatively. Discussion about the behavioral examples from which those persons are working should help to reduce discrepancies.

It is important to remember that there is nothing sacred about the Inventory just because it has been printed and has been subjected to a for-

mal developmental process and statistical treatment. Scale scores that deviate greatly from staff members' general impressions of a student should be rechecked, discussed, and perhaps reassessed.

As it will have been noted, each item is to be rated on a four-point scale: VERY TRUE to true to false to VERY FALSE. This response mode was selected because it gave some possibilities for indicating degrees of agreement with the statement, and because the true/false format seemed to fit most of the statements better than alternative tags. Those persons who have a problem fitting their thinking to the "T t f F" format should remember that these letters are translated into numerical scores ranging from the most positive response to the most negative one. It will also be noted that "T" is the most positive assessment for some items and will be translated into a score of "4"; for other items "T" is the most negative assessment and will be translated into a score of "1." However, the evaluator does not need to be concerned with this difference since the scoring templates are designed to convert the numerical value where necessary.

The "?" can reflect either of two situations. The item, as it is worded, does not apply to a particular student; or the person doing the assessment has not had an opportunity to observe the student in enough situations related to the item to feel confident about making the judgment. The "?" should be used as infrequently as possible, because any scale which does not have at least eighty percent of the items completed cannot be scored.

However, it is better for a rater to feel a certain degree of confidence about the judgment than to complete items merely for the sake of getting a scale score. In some cases, an individual may need additional time for observation of a particular student, or some other member of the school staff might feel more qualified to complete the assessment of that student. It is important that any "comparing of notes" about individual students take place only after the assessment has been completed and scored. The most useful scores are those that reflect the judgment of one person using his or her own observations. Discussions with others about specific items can influence the independent opinion of the rater.

Scoring

Scoring is accomplished quickly and easily by using the three transparent templates that accompany this manual. (There is one template for each of the three scales.) Begin by placing the templates marked "Scale 1" over the Inventory items, matching number 1 through number 59. Check the appropriate numerical value (1,2,3, or 4) in the item number box of the scoring sheet found on page 3 of the Inventory. Follow the same procedure for Scale 2 and for Scale 3 templates.

Count the number of items that were given a value of "1" and enter the total on the scoring sheet. Multiply by 1 and enter that total. Follow this procedure for values 2, 3, and 4. Then add the total number of items that were rated and the total scores. Divide the second number (total score) by the first (total number of items) to get the average rating given for the 23 items in Scale 1. Do not compute this average rating if fewer than 18 items were completed by the rater. Repeat this procedure for Scale 2 and for Scale 3.

Using appropriate age and sex information, examine Tables 3 and 4 in this manual. Find the decile score closest to the scale score assigned to the individual student and enter the decile figure on the scoring sheet. Repeat this process for Scale 2 and for Scale 3.

The example of the scoring procedure (Figure 1) is based on a hypothetical girl, age 13. The scoring format is reproduced from page three of the Inventory.

In this example, "Janie Doe" received an average score of 2.43 on Scale 1, Social Adjustment. This score falls between the 10th and 20th percentiles (see Table 3). A score of 2.10 for Scale 2, Self

Table 3
Norms for Ages 7 - 15

Percentile	Scale 1 Social Adjustment		Scale 2 Self Image		Scale 3 Emotional Adjustment
	Girls	Boys	Girls	Boys	Both Girls & Boys
90	3.70	3.52	3.75	3.65	3.92
80	3.48	3.26	3.55	3.45	3.69
70	3.30	3.09	3.36	3.29	3.54
60	3.13	3.00	3.23	3.14	3.33
50	3.04	2.90	3.10	3.00	3.18
40	2.95	2.78	3.00	2.90	3.08
30	2.78	2.61	2.86	2.81	3.00
20	2.61	2.39	2.73	2.68	2.91
10	2.35	2.21	2.48	2.48	2.69
(N)	*(540)*	*(692)*	*(477)*	*(605)*	*(1231)*

Table 4
Norms for Ages 16 - 21

Percentile	Scale 1 Social Adjustment		Scale 2 Self Image		Scale 3 Emotional Adjustment
	Girls	Boys	Girls	Boys	Both Girls & Boys
90	3.74	3.70	3.68	3.64	3.92
80	3.61	3.41	3.50	3.37	3.75
70	3.35	3.23	3.25	3.18	3.58
60	3.22	3.09	3.10	3.05	3.45
50	3.09	3.00	2.95	2.95	3.25
40	3.00	2.87	2.90	2.86	3.15
30	2.91	2.77	2.80	2.76	3.00
20	2.83	2.52	2.73	2.60	2.92
10	2.57	2.18	2.55	2.37	2.77
(N)	*(395)*	*(444)*	*(317)*	*(358)*	*(811)*

Figure 1
Computation Sheet for "Janie Doe"

SCALE 1 Social Adjustment

N = 23

Item number

	1	2	5	9	11	14	17	20	23	27	29	32	35	37	40	43	45	46	48	51	52	55	59	Total		
1	✓						✓						✓						✓				✓	5	x 1 =	5
2		✓				✓		✓				✓		✓				✓						6	x 2 =	12
3			✓		✓				✓		✓				✓		✓							6	x 3 =	18
4				✓						✓						✓					✓			4	x 4 =	16
?																				✓		✓				

Do not compute score if fewer than 18 items are complete.

51 (Total 2) ÷ 21 (Total 1) = 2.43 (Score)

21 (Total 1) 51 (Total 2)

SCALE 2 Self Image

N = 23

Item number

	3	4	7	12	15	16	19	24	26	28	33	34	38	41	42	44	47	49	50	53	54	56	57	Total		
1	✓	✓		✓							✓			✓						✓				6	x 1 =	6
2			✓			✓						✓	✓		✓				✓			✓		7	x 2 =	14
3					✓		✓									✓	✓				✓		✓	6	x 3 =	18
4								✓																1	x 4 =	4
?									✓	✓								✓								

Do not compute score if fewer than 18 items are complete.

42 (Total 2) ÷ 20 (Total 1) = 2.10 (Score)

20 (Total 1) 42 (Total 2)

SCALE 3 Emotional Adjustment

N = 13

Item number

	6	8	10	13	18	21	22	25	30	31	36	39	58	Total		
1														0	x 1 =	0
2			✓											1	x 2 =	2
3	✓	✓					✓				✓			4	x 3 =	12
4				✓	✓	✓		✓		✓		✓	✓	7	x 4 =	28
?									✓							

Do not compute score if fewer than 10 items are complete.

42 (Total 2) ÷ 12 (Total 1) = 3.50 (Score)

12 (Total 1) 42 (Total 2)

OVERALL SCORE

Social Adjustment 2.43

Self Image 2.10

Emotional Adjustment 3.50

Be sure to use the scoring overlays included with the Inventory Manual. Responses of "True" and "False" have differing values for some items.

Image, is below the 10th percentile; a score of 3.50 for Scale 3, Emotional Adjustment, is between the 60th and 70th percentiles.

Figure 2
Profile form of "Janie Doe"

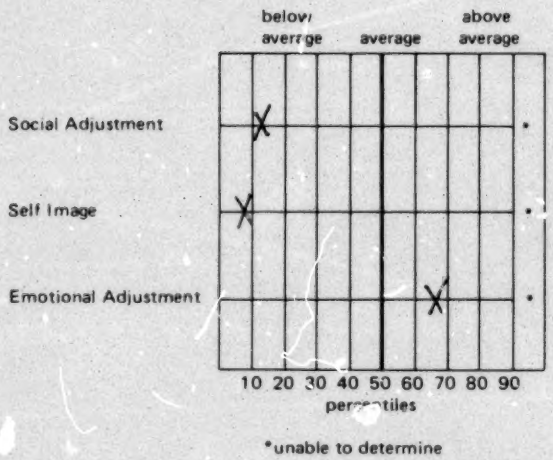

Figure 2 is from a profile form developed at Kendall Demonstration Elementary School. It allows for the graphic representation of these gradations. This form is also on the back of the Inventory.

The Use of the Social-Emotional Assessment Inventory: A Cautionary Postscript

It is worth repeating that this Inventory (or any other) is useful only if it is completed thoughtfully after careful observations. Public Law 94-142 mandates the assessment of all handicapped children in those areas which are important to their educational achievement and their general optimal development. The law also requires that assessment instruments be standardized on a population similar to that with which they are used. However, assessment should never be done for its own sake.

There should be some thoughtful plan for implementing a program that will meet the needs of students who are found to be operating in, for example, the tenth, twentieth, or thirtieth decile, in an effort to improve their self image or their social and emotional adjustment. There also should be a sensitivity to the dangers of "labelling" students so that they are helped rather than hindered in overcoming their problems.

One danger inherent in the classification of behavior problems of children is that it encourages a static view of behavior that may be tied to differential rates of development or maturity. The traditional approach to the classification of childhood mental disorders was derived from and is tied to the classification of adult disorders. This means that professionals may be tempted to view the child as a miniature adult, thereby ignoring developmental patterns that reflect maturational lags. It may also encourage the idea that disturbance in childhood leads inevitably to disturbance in adulthood, although this is not the case (Phillips, Draguns & Bartlett, 1975). This is a special danger where deaf students are concerned, since they may suffer developmental lags that are associated closely with early linguistic and cultural deprivation, but which they may overcome as communication becomes easier for them and they have more experiences with other deaf people.

The Social-Emotional Assessment Inventory should be seen as one tool that can be used to "flag" a student who needs extra attention in a particular area. The Inventory can be useful in communicating to parents who are reluctant to admit that their child needs some special attention. It can be helpful in implementing an individualized program so that social and emotional areas are emphasized in the curriculum for a child who needs them.

This kind of approach to practical action can help to implement the spirit as well as the letter of Public Law 94-142.

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Meadow/Kendall Social-Emotional Assessment Inventory for Deaf Students

Kendall Demonstration Elementary School
Gallaudet College

Date of Rating _____ Date of Birth _____
month day year

Student's Name _____ Sex ___ M ___ F
(First) (Last)

School _____

Rater's Name _____

Position _____

INSTRUCTIONS:
Read each statement carefully and decide if it describes behavior that you have observed in this particular student. In deciding how to assess the student, use as your reference all students of the same age, regardless of whether they have a hearing loss or not. (However, some statements are relevant ONLY for hearing impaired students. For these statements, use all deaf students known to you as your reference, NOT just those in your present class.) Circle the response that reflects your best judgement of this student.

Example:
T t (f) F ? 23. Happy, cheerful, pleasant, easy-going

Key:
T = VERY TRUE. Statement gives a very good description of this student as she or he behaves most of the time.

t = true. Statement describes this student's behavior some of the time.

f = false. Statement is not a good description of this student's behavior.

F = VERY FALSE. This student would never (or almost never) be described in this way.

? = CANNOT RATE or DOES NOT APPLY

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T = VERY TRUE t = true f = false F = VERY FALSE ? = CANNOT RATE or DOES NOT APPLY

T t f F ? 1. Obeys the rules; follows instructions or requests from adults in authority

T t f F ? 2. Kind and considerate

T t f F ? 3. Relates well to peers and is accepted by them

T t f F ? 4. Distinguishes between fact and fiction, real and imaginary events and/or people (e.g., understands that "Superman" does not really exist)

T t f F ? 5. Aggressive. Behavior may include fighting, scratching, biting other students and/or kicking or hitting animals

T t f F ? 6. Demonstrates negative feelings about physical size and/or strength

T t f F ? 7. Takes pride in physical appearance/personal attractiveness: feels at least moderately pretty or handsome

T t f F ? 8. Engages in behavior considered by most teachers and students to be bizarre or strange (e.g., talking or signing to self, rocking, staring at lights for long periods, twirling)

T t f F ? 9. Has generally acceptable emotional responses. Rages (tantrums) or violent outbursts occur only after extreme provocation if at all

T t f F ? 10. Has many fears. Overly and unrealistically concerned with danger, storms, injury, death

T t f F ? 11. Accepts some delay of gratification. (Does not expect instant satisfaction of every need, whim or desire)

T t f F ? 12. Isolated. Has few or no friends. May be considered "withdrawn"

T t f F ? 13. Lacks competence with tools, utensils or equipment even though there is no apparent physical basis for lack of skill

T t f F ? 14. Teases or annoys or pesters other students

T t f F ? 15. Shows initiative in completion of assignments; motivated to finish work

T t f F ? 16. Tries to communicate with others (both deaf and hearing) by any means necessary: (signs), speech writing, pantomime

T t f F ? 17. Takes responsibility for fair share of tasks (e.g. helps to clean up after a project is finished)

T t f F ? 18. Insists on repetition of usual routines. Changes in schedules, habits, route arrangements elicit extreme (negative) responses

T t f F ? 19. Self-reliant. Not overly dependent on others for help

T t f F ? 20. Performs cooperatively in group of peers. Contributes to cohesion rather than to conflict

T t f F ? 21. Overly concerned with cleanliness. (May wash hands constantly or be unable to tolerate specks of dust or dirt)

T t f F ? 22. Shows great concern or preoccupation with minute details (e.g., may insist on perfection in writing or drawing)

T t f F ? 23. Happy, cheerful, pleasant, easy-going

T t f F ? 24. Gives up quickly. Expects to fail

T t f F ? 25. Complains of physical ailments that have no apparent medical basis (e.g., headaches, stomachaches, etc.)

T t f F ? 26. Identifies with (e.g., shows excited recognition of) a stranger or visitor who wears a hearing aid

T t f F ? 27. Engages in destructive behavior (e.g., breaking objects, defacing walls or furniture, scattering things in disarray)

T t f F ? 28. Relates well to adults (both men and women)

T t f F ? 29. Trustworthy, dependable, reliable

T t f F ? 30. Anxious. Nervous. Worries about many commonplace events

T t f F ? 31. Demonstrates negative attitudes toward sign language (refuses to sign, pretends not to understand others' signing)

T t f F ? 32. Misbehavior not deterred by restrictions or by threat of punishment

T t f F ? 33. Creative. Shows imagination in school work in leisure/play activities

T t f F ? 34. Lethargic. Lacks energy. Always tired.

T t f F ? 35. Fails to accept criticism, especially if it is expressed as discipline or restriction

T t f F ? 36. Demonstrates negative feelings about own motor skills, dexterity, or visible handicaps

T t f F ? 37. Demands attention. Must be center of everything. (May insist on being first in line, or leader, or captain)

T t f F ? 38. Shows excited, positive responses to stranger who is using signs

T t f F ? 39. Has many accidents or mishaps resulting in breakage of objects or injuries requiring first aid

T t f F ? 40. Seems to understand the feelings of others; demonstrates empathy

T t f F ? 41. Tries to understand the communication of others by any means offered: listening, lipreading, signing, writing, gestures

T t f F ? 42. Curious. Eager to learn new things. Likes new experiences

T t f F ? 43. Responds poorly to losing in games or failing to achieve in class

T t f F ? 44. Daydreams. Tunes out events in immediate environment

T t f F ? 45. Accepts differences in other people; doesn't tease or exclude peers on basis of racial differences or physical handicaps

T t f F ? 46. Has habits, mannerisms or traits considered to be rude or socially unacceptable (e.g., picks nose, makes obscene/sexual references)

T t f F ? 47. Participates in classroom or group activities; volunteers answers, offers opinions in discussions

T t f F ? 48. Doesn't try to copy classmates' work nor take things belonging to others

T t f F ? 49. Other students look to this student as a leader

T t f F ? 50. Demonstrates a sense of humor or wit (e.g., can appreciate funny situations or jokes at own expense)

T t f F ? 51. Generous. Shares with others

T t f F ? 52. Demands attention and help constantly. Takes disproportionate share of teacher's time

T t f F ? 53. Participates well in organized play or games (takes role of leader or follower; plays to completion; follows rules)

T t f F ? 54. Is willing to interact with hearing people (i.e., does not refuse to interact with peers or adults who have normal hearing)

T t f F ? 55. Acts without thinking. Impulsive. Doesn't consider or doesn't care about consequences

T t f F ? 56. Demonstrates acceptance/pride in own social group membership (i.e., racial/ethnic/linguistic/religious identity)

T t f F ? 57. Avoids communicating through speech. Seems embarrassed to use voice

T t f F ? 58. Displays twitches, mannerisms, tics of face or body

T t f F ? 59. Denies own misbehavior (may also blame others for own misdeeds)

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SCALE 1 Social Adjustment

N = 23

Item number

	1	2	5	9	11	14	17	20	23	27	29	32	35	37	40	43	45	46	48	51	52	55	59	Total
1																								
2																								
3																								
4																								
?																								

X 1 = ____

X 2 = ____

X 3 = ____

X 4 = ____

Do not compute score if fewer than 18 items are complete.

Total 1 ÷ Total 2 = Score

SCALE 2 Self Image

N = 23

Item number

	3	4	7	12	15	16	19	24	26	28	33	34	38	41	42	44	47	49	50	53	54	56	57	Total
1																								
2																								
3																								
4																								
?																								

X 1 = ____

X 2 = ____

X 3 = ____

X 4 = ____

Do not compute score if fewer than 18 items are complete.

Total 1 ÷ Total 2 = Score

SCALE 3 Emotional Adjustment

N = 13

Item number

	6	8	10	13	18	21	22	25	30	31	36	39	58	Total
1														
2														
3														
4														
?														

X 1 = ____

X 2 = ____

X 3 = ____

X 4 = ____

Do not compute score if fewer than 10 items are complete.

Total 1 Total 2

Total 2 ÷ Total 1 = Score

OVERALL SCORE

Social Adjustment _____

Self Image _____

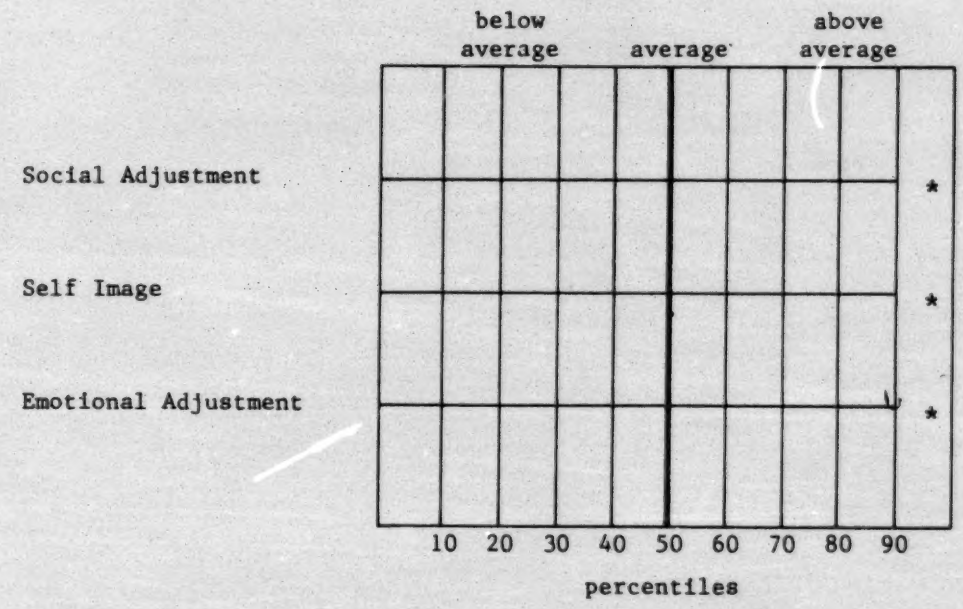
Emotional Adjustment _____

Be sure to use the scoring overlays included with the Inventory Manual. Responses of "True" and "False" have differing values for some items.

SOCIAL-EMOTIONAL ASSESSMENT

Student

Date Completed



*unable to determine

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